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August 10, 2005
Case No. CR00254M (9640/45)
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CLAIM LISTING

A listing of an entire set of claims 1-28 is submitted herewith per 37 CFR §1.121 to replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of ~~interference averaging~~ in a multicarrier system, comprising:
providing a plurality of subcarriers; ~~and~~
averaging interference in a partially loaded multicarrier system,
~~wherein transmitting nulls are transmitted~~ on at least one of the subcarriers during [[a]] at least one symbol period; and
wherein transmitting a data symbol is transmitted on at least one of the other subcarriers during the at least one symbol period.
2. (Original) The method of claim 1, further comprising:
spacing the nulls evenly on the subcarriers across a channel band.
3. (Original) The method of claim 1, further comprising:
pseudo-randomly spacing the nulls on the subcarriers across a channel band.
4. (Original) The method of claim 1, further comprising:
offsetting the symbol period by a predetermined amount of time.
5. (Original) The method of claim 1, further comprising:
offsetting the subcarriers by a predetermined frequency.

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6. (Currently Amended) A transmitter capable of interference averaging in a multicarrier system, comprising:
means for transmitting packet data on plurality of subcarriers; and
means for averaging interference in a partially loaded multicarrier system, wherein the averaging interference means includes transmitting nulls on selected ones of the subcarriers during a symbol period; ~~and means for~~ and transmitting data on the remainder of the subcarriers during the symbol period.
7. (Withdrawn) A transmitter capable of interference averaging in a multicarrier system, comprising:
means for transmitting data symbols on a plurality of subcarriers;
means for transmitting nulls on at least one of the subcarriers during a symbol period; and
means for transmitting a data symbol on at least one of the other subcarriers during the symbol period.
8. (Withdrawn) A method of interference averaging in a multicarrier system, comprising:
providing a plurality of subcarriers;
assigning a plurality of data symbols to a first subset of the subcarriers for transmission during a symbol period;
assigning the data symbols to at least a second subset of the subcarriers for transmission during the symbol period; and
reducing the transmit power corresponding to the symbol period.
9. (Withdrawn) The method of claim 8, further comprising:
assigning at least one repeated data symbol to an adjacent subcarrier.
10. (Withdrawn) The method of claim 8, further comprising:
rotating the phase of at least one the data symbols by a predetermined value.

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11. (Withdrawn) The method of claim 10, further comprising:
rotating the phase of a second repeated data symbol by a second
predetermined value.
12. (Withdrawn) The method of claim 8, further comprising:
assigning the data symbols according to a predetermined cell repetition
mapping.
13. (Withdrawn) The method of claim 8, further comprising:
offsetting the symbol period by a predetermined amount of time.
14. (Withdrawn) A transmitter capable of interference averaging in a multicarrier
system, comprising:
means for assigning a plurality of data symbols to a plurality of subcarriers for
transmission during a first symbol period;
means for assigning the data symbols to a second plurality of subcarriers for
transmission during a second symbol period; and
means for reducing the transmit power corresponding to the first and second
symbol periods.
15. (Withdrawn) The transmitter of claim 14, wherein at least one of the data
symbols is assigned to a different subcarrier during the first and second symbol
periods.
16. (Withdrawn) The transmitter of claim 14, wherein the first and second
plurality of subcarriers have at least one subcarrier in common.

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17. (Withdrawn) A method of interference averaging, comprising:
 assigning a plurality of data symbols to a first subset of a plurality of subcarriers for transmission during a first symbol period;
 assigning the data symbols to a second subset of the subcarriers for transmission during a second symbol period; and
 reducing the transmit power corresponding to the first and second symbol periods.
18. (Withdrawn) The method of claim 17 wherein at least one of the data symbols is assigned to a different subcarrier during the first and second symbol periods.
19. (Withdrawn) The method of claim 17 wherein the first and second subset have at least one subcarrier in common.
20. (Withdrawn) The method of claim 17 wherein the first subset includes all of the plurality of subcarriers.
21. (Withdrawn) The method of claim 17, wherein the first and second symbol periods are non-adjacent symbol periods.
22. (Withdrawn) The method of claim 17, further comprising:
 rotating the phase of at least one of the data symbols for at least one of the first and second symbol periods by a predetermined value.
23. (Withdrawn) The method of claim 17, further comprising:
 assigning the data symbols according to a predetermined cell repetition mapping.

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24. (Withdrawn) The method of claim 17, further comprising:
offsetting at least one of the symbol periods by a predetermined amount of
time.
25. (Withdrawn) The method of claim 17, further comprising:
offsetting the subcarriers by a predetermined frequency.
26. (Withdrawn) A multicarrier communication system, comprising:
means for assigning a plurality of data symbols to a first subset of a plurality
of subcarriers for transmission during a first symbol period;
means for assigning the data symbols to a second subset of the subcarriers for
transmission during a second symbol period; and
means for reducing the transmit power corresponding to the first and second
symbol periods.
27. (Withdrawn) A method for interference averaging, comprising:
providing a first data symbol having a first transmit power;
providing a second data symbol having a second transmit power;
transmitting the first and second data symbols during the same symbol period;
and
transmitting the first and second data symbols on different subcarriers.

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28. (Withdrawn) A method of reducing co-channel interference, comprising
- determining whether transmitting data with a predetermined modulation/coding rate would leave one or more symbol periods unused in a frame;
 - selecting a reduced coding/modulation rate based on a number of unused symbol periods;
 - transmitting data with reduced modulation/coding rate such that a number of unused symbol periods is reduced; and
 - reducing the transmit power of the data symbols with the reduced modulation/coding rate.